

REMARKS

Applicants have carefully reviewed the Office Action mailed October 27, 2010 and offer the following remarks to accompany the above amendments.

Status of the Claims

Claims 9-12, 14-19, 32, 33, and 42-50 were previously pending. No claims are added or cancelled herein. Accordingly, claims 9-12, 14-19, 32, 33, and 42-50 remain pending.

Allowable Subject Matter

Applicants wish to thank the Examiner for indicating that claims 9-12, 14, 15, 17-19, 32, 33, 42, and 44-50 are allowable.

Claim Objection

Claim 43 was objected to for containing an incomprehensible word in the preamble. Appropriate correction is provided herein. Applicants request withdrawal of the objection to claim 43 at this time.

Rejection Under 35 U.S.C. § 103(a)

Claim 16 was rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,349,207 to Malhi (hereinafter “Malhi”) in view of U.S. Patent No. 5,296,047 to Fellner (hereinafter “Fellner”). Applicants respectfully traverse. To establish *prima facie* obviousness, the Patent Office must show where each and every element of the claim is taught or suggested. MPEP § 2143.03. While the Patent Office is allowed to give claim terms their broadest reasonable interpretation, that broad interpretation this interpretation is limited by a number of factors. First, the interpretation must be consistent with the specification. *In re Hyatt*, 211 F.3d 1367, 1372 (Fed. Cir. 2000); M.P.E.P. § 2111. Second, the broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach. Finally, the interpretation must be reasonable. *In re Cortright*, 165 F.3d 1353, 1359 (Fed. Cir. 1999); M.P.E.P. § 2111. This means that the words of the claim must be given their plain meaning unless the applicant has provided a clear definition in the specification. *In re Zletz*, 893 F.2d 319, 321 (Fed. Cir. 1989).

Claim 16 recites “a Silicon Carbide substrate. . .and a single crystal Silicon semiconductor having a top surface; said single crystal Silicon semiconductor material overlaying said bonding layer. . .” The Patent Office opines that Malhi element 30 is a substrate. However, this interpretation of substrate is not a reasonable interpretation to one of

ordinary skill in the art. The term “substrate” as known to those of ordinary skill in the art means that which provides the underlying support or foundation. Mahli element 30 does not support anything. Rather, Mahli element 30 lies on top of the substrate 20. This is confirmed by Mahli, col. 3, lines 41-52 which describes a plurality of SiC wafers 30 being positioned on silicon holder 20. The Patent Office’s interpretation of the term substrate is not reasonable. Further confirmation of the different nature of the claim’s substrate/silicon layers relative to Mahli is found in the portion of the claim which recites that the single crystal semiconductor material overlays the bonding layer. In contrast, Mahli’s silicon layer 20 is underneath Mahli’s bonding layer 58, not overlaying as recited in claim 16. In short, Mahli teaches the exact converse of the claim structure.

Applicants note that Mahli’s structure is akin to that criticized on page 2, lines 19-21 of the specification as filed. That is, “there are various possibilities for growing and/or bonding Silicon Carbide (SiC) to Silicon (Si), however, none for growing Silicon or bonding it to Silicon Carbide.”

Nothing in cited portions of Fellner cures the deficiencies of Mahli. Since the references individually do not teach or suggest the claim elements, the combination of references cannot teach or suggest the claim elements, and claim 16 is allowable. Applicants request claim allowance for claim 16.

Conclusion

The present application is now in condition for allowance and such action is respectfully requested. The Examiner is encouraged to contact Applicants’ representative regarding any remaining issues in an effort to expedite allowance and issuance of the present application.

Respectfully submitted,

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